

ABSTRACT

A serial/parallel converter 101 converts a single stream of transmit data to a plurality of streams of transmit data, outputs first-stream transmit data and fourth-stream transmit data to error correction coding sections 102 and 103, respectively, and outputs second-stream transmit data and third-stream transmit data to an IFFT section 106. The IFFT section 106 generates an OFDM signal using the second-stream transmit data and third-stream transmit data, together with first-stream and fourth-stream transmit data that has undergone error correction coding processing. A peak detector 107 detects peak power of the generated OFDM signal. If the detected peak power exceeds a threshold value, the IFFT section 106 re-generates an OFDM signal using a peak suppression signal from a peak suppression signal generator 108 instead of first-stream and fourth-stream transmit data.